

Abstract

In a thin film magnetic head device including a reading giant magneto-resistive thin film magnetic head element whose electric equivalent circuit is expressed by a series circuit of an equivalent voltage source and a series resistor R_H and a parallel capacitor C connected in parallel with said series circuit, an inductor L is connected in series with said series resistor R_H and a parallel resistor R is connected in series with said parallel capacitor C . The coil L and parallel capacitor C are set such that an angular frequency $\omega_0 = 1/(LC)^{1/2}$, an angular frequency $\omega_1 = 1/CR$ and an angular frequency $\omega_H = 1/CR_H$ satisfy conditions of $\omega_0 > \omega_1$ and $\omega_0 > \omega_H$, preferably $\omega_0 \gg \omega_1$ and $\omega_0 \gg \omega_H$ to extend a frequency characteristic toward a high frequency range.

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